# Rooftop Unit Specification Working Group

U.S. DEPARTMENT OF ENERGY | Energy Efficiency & Renewable Energy

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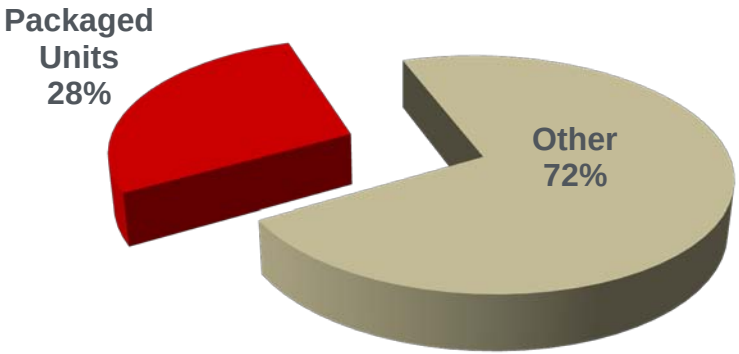
## Background

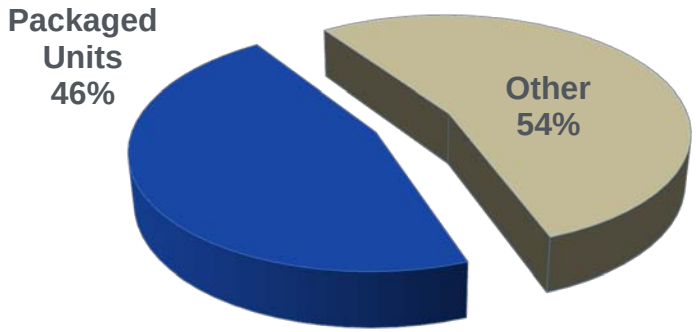
- Technology and System Specification Development
  - LED Parking Lot Lighting
  - High Efficiency Parking Structure Lighting
  - LED Refrigerated Case Lighting
  - High Efficiency UAC Rooftop Air Conditioner
- Volume Purchase/Market Pull
- CBEA recognized Rooftop Packaged Units as an area that would benefit from this approach

# Commercial Conditioned Floor Space
# Heating and Air Conditioning Equipment

## Heating




## Cooling

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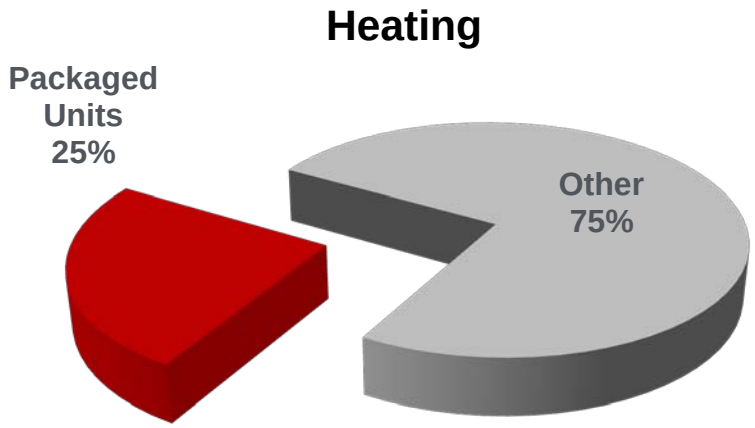
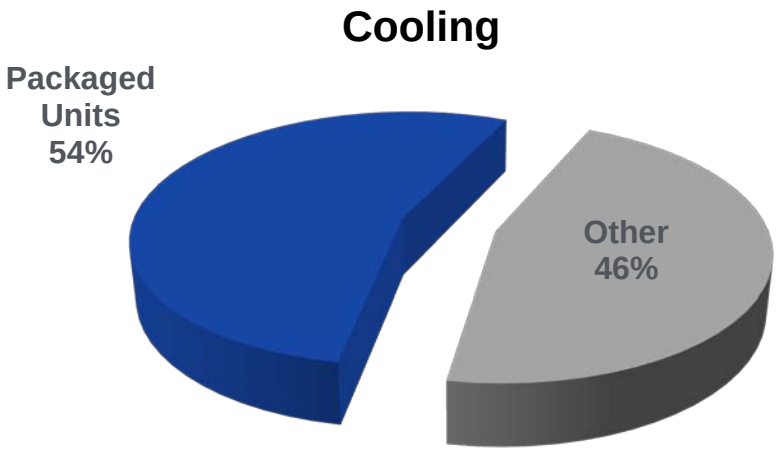
# Commercial Primary Energy Use: Heating and Cooling Equipment

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# Rooftop Unit Specification Working Group



Created in 2009

Looking for ways to improve RTU efficiency

# Rooftop Unit Specification Working Group

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| Milestone | Start – Completion Date |
|---|---|
| • Establish Working Group | Oct. ’09 – Feb. ’10 |
| • Identify key performance requirements | Nov. ’09 – Feb. ’10 |
| • Request manufacturer part load data | Dec. ’09 – Feb. ’10 |
| • Develop performance product specification | Spring 2010 |
| • Request manufacturer feedback | Summer 2010 |
| • Expand Evaluation Tool | Spring 2010 |
| • User trial of expanded Evaluation Tool | Summer 2010 |
| • Issue final product specifications and tool | Fall 2010 |

Red – Alliance member participation  Green – Manufacturers’ participation

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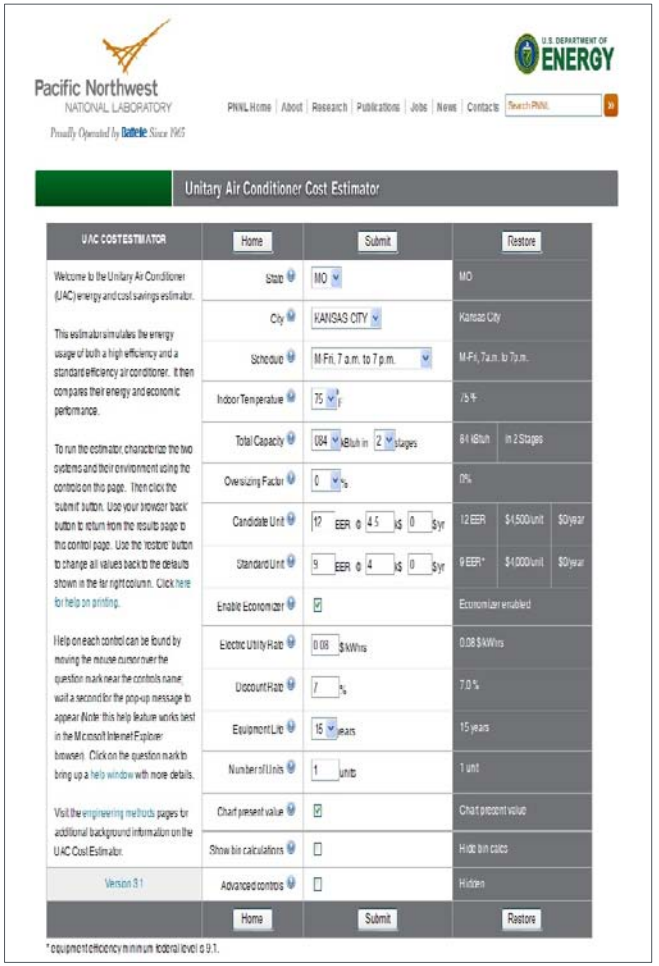
# Current Focus

- Draft a performance specification
  - General construction
  - Unit performance
  - Controls
- Expand Evaluation tool
  - Compare unit performance
  - Calculate life-cycle cost
  - Include more options

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# Current involvement opportunities

- Alliance members:
  - Needs input
  - Spec review (manageable sections)
  - Tool testing
- Manufacturers
  - Part load data
  - Review draft specifications (reality check)

# For more information or to join, contact:

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## Resources

*DOE's Commercial Building Energy Alliances:*
*http://buildings.energy.gov/alliances*
*Unitary Air Conditioner Cost Estimator (UAC) Tool:*
*http://www.pnl.gov/uac/*

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References:

- Slides 3 & 4 — data from U.S. Department of Energy *2008 Buildings Energy Data Book,* buildingsdatabook.eren.doe.gov

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